

~~CONFIDENTIAL~~CLASSIFICATION ~~SECRET/CONTROL/US OFFICIALS ONLY~~COUNTRY Rumania REPORT NO. 25X1TOPIC Molybdenum and Bismuth Mine in BaitaEVALUATION 25X1X PLACE OBTAINED 25X1DATE OF CONTENT 25X1DATE OBTAINED 25X1 DATE PREPARED 20 April 1950REFERENCES 25X1PAGES 4 ENCLOSURES (NO. & TYPE) 3 Sketches on Ditto

REMARKS

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1. History :

The mine was formerly known under the Hungarian designation Rezbanya. It was operated by the German Europetrol Company from 1941 to 1944. Since 1946/1947 it has been assigned to the Nationalized Company Minaur; however, the actual management is in Soviet hands.

2. Location : See Annex 1.

Baita (Hungarian designation Rezbanya) is in the Bihor Comitat, 9 km east of Vascau, the terminal of the 103-km long Oradea Mare-Beius-Vascau railroad line.

About 2½ kilometers east of Baita at the mouth of the Baita brook flowing into the Crisul Negru River is the Sgura Iron Works and 2.5 km northeast of it is the mine.

3. Management :

The general management of the Minaur Plant is in Baia Mare, the plant management in Baita.

4. Work force :

Three mining engineers (two employed in the mine, one in the Sgura Iron Works).

Eight assistant engineers (six employed in the mine, two in the Sgura Iron Works).

About 180 to 200 workmen including foremen in the iron works, work-

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shops etc.

Seven hundred to eight hundred miners employed in the mine.

5. Traffic facilities :

The next railroad station is Lunca, 103 km from Oradea Mare. A narrow-gauge about 15-km long plant railroad line leads from Lunca to the mine.

Approach road is the Oradea Mare-Beius-Lunca-Baita Highway (in some parts not in a serviceable condition).

6. Plant installations :

See Annex 2.

a. Mine, designated Mina.

- (1) Crushing hammer and sieving plant
- (2) Compressor station and storage battery charging station. Stone building with tile roof, covering an area of 20 x 12 meters.
- (3) Office building
- (4) Forge and locksmith's shop
- (5) Old crushing hammer mill
- (6) Wooden building with mine entrance.

The mine has seven levels, four of them above the level of the entrance, one on the same level and two below the entrance level.

- (7) Water basin
- (8) Canal.

b. Iron works designated Sgura, 2.5 km west of the mine (see Annex 3) (Sgura means slag).

- (1) Crushing hammer mill (40 x 20 m), two crushing hammers; each with a daily capacity of 100 to 150 tons.

Crushing mill, hourly capacity about 1 to 1.5 tons.

Washing plant; it processes about 100 kg of ore per hour.

Depositing basin, silo. It holds about 25 railroad carloads.

- (2) Drying silo
- (3) Bismuth works
- (4) Mechanical workshops. Stone building with tile roof, (30 x 15 m), equipped with lathes, metal planers, drilling and milling machines. Most tools needed in the mine and iron works can be manufactured in these workshops.
- (5) Power plant II, steam power plant, 500 HP.

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- (6) Smokestack
- (7) Laboratory
- (8) Bismuth factory. The Bismuth nitrate and Bismuth carbonate produced in the Bismuth Works (No 3) are refined in this factory, then pulverized, dried and packed.
- (9) Tool shed.
- (10) Management building.
- (11) Depot
- (12) Power station (turbine). It has a Francis turbine, make Ganz-Budapest, coupled with an AC dynamo of 450 to 500 kw.
- (13) Office building
- (14) Garage
- (15) and (16) residential buildings for civil employees
- (17) Canal
- (18) Pipe line to the power station.

#### 7. Production :

a. The mined molybdenum ore is molybdenite ( $\text{MoS}_2$ ). It is mined on some hundred workings in the seventh level. The produced ore contains 60 to 70 percent of molybdenite. After being processed several times in the washing plant, the material contains 30 to 90 percent molybdenite.

By washing, the molybdenum ore is processed to higher concentration. It is then purified and crushed but not smelted.

It is shipped as ore concentrate. At full production rate, about three tons of molybdenite are produced in an eight-hour shift. Work is done mostly in three shifts, continually.

b. Bismuth ore (bismuth glance as in  $\text{Bi}_2\text{S}_3$ ). It is found at about 50 workings in only three or four of the seven levels. The bismuth ore is immediately smelted in Baita and also processed into marketable pure bismuth, bismuth nitrate and bismuth carbonate. About 100 kg of pure bismuth are produced monthly.

#### 8. Soviet control :

The Soviet control commission urges the greatest possible increase of molybdenum ore production. All levels, including the reserve levels, are further expanded.

#### 9. Outgoing shipments :

The entire production of molybdenum ore as well as of bismuth and bismuth compounds is shipped directly to the Soviet Union.

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Comment :

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According to other reports the reported mines were shut down during the war. Mining operation was resumed on 11 June 1948 after the mines (formerly assigned to the SA Miniera romana Molybden - Rumanian Mining Corporation Molybden ) had been nationalized.

- 3 Annexes :
1. Molybdenum and Bismuth Mine in Baita.
  2. Layout Sketch of the "Mina" Mine.
  3. Ironworks Designated Sgura.

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